

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2002 - Dec 31, 2002**

***Presented Published***

## ***ABSTRACT/ORAL***

Ozkaynak, H. Assessing children's exposures: issues, approaches and plans. Presented at: 2002 Annual Meeting of the International Life Sciences Institute (ILSI), Cancun, Mexico, January 19-24, 2002. 1/19/2002

***Contact:*** A. Haluk Ozkaynak

Luecken, D.J., and Tonnesen, G.S. Choosing a chemical mechanism for regulatory and research air quality modeling applications. Presented at: 7th US-German Workshop, Bad Breisig, Germany, October 9-11, 2002. 10/9/2002

***Contact:*** Deborah J. Luecken

Edney, E.O., Speer, R.E., and Kleindienst, T.E. Assessment of the liquid water content of summertime aerosol in the Southeast United States. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002. 10/7/2002

***Contact:*** Edward O. Edney

Graham, S.E., Burke, J.M., and Ozkaynak, H. A probabilistic modeling framework for predicting population exposures to benzene. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Stephen E. Graham

Zartarian, V., Xue, J., Dang, W., Ozkaynak, H., Cook, N., Aviado, D., and Mostaghimi, S. Modeling aggregate exposure and dose of children to a wood treatment preservative from playsets and home decks. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Valerie G. Zartarian

Burke, J.M., Rea, A.W., Suggs, J.C., Williams, R.W., Xue, J., and Ozkaynak, H. Ambient particulate matter exposures: a comparison of SHEDS-PM exposure model predictions and estimates derived from measurements collected during NERL's RTP PM panel study. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Janet Burke

Swartz, E.C., Stockburger, L., and Vallero, D.A. Monitoring toxic organic gases and particles near the World Trade Center after September 11, 2001. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Erick Swartz

Wang, S.W., Vyas, V.M., Yang, Y.C., Georgopoulos, P.G., and Ozkaynak, H. Assessing multimedia/multipathway exposure to arsenic using a mechanistic source-to-dose modeling framework. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** A. Haluk Ozkaynak

Edney, E.O., Speerand, R.E., Weathers, W.S., Kleindienst, T.E., Corse, E.W., and McIver, C.D. PM2.5 organic composition from several sites in the United States. Presented at: American Association for Aerosol Research, Charlotte, Nc, October 7-11, 2002. 10/7/2002

***Contact:*** Edward O. Edney

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Burke, J.M., Ito, K., Norris, G.A., Ozkaynak, H., and Wilson, W. Implications of selecting alternative exposure metrics in analyzing the relationships between PM and acute mortality and morbidity in Philadelphia. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Janet Burke

Burke, J.M., Vedantham, R., McCurdy, T.R., Xue, J., and Ozkaynak, H. A population exposure model for particulate matter: SHEDS-PM. Presented at: American Association of Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Janet Burke

Edney, E.O., Clegg, S.L., Bartolotti, L.J., and Kleindienst, T.E. Computational chemistry method for predicting vapor pressures and activity coefficients of polar organic oxygenates in PM<sub>2.5</sub>. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Edward O. Edney

Edney, E.O., Clegg, S.L., and Seinfeld, J.H. Thermodynamic modeling of liquid aerosols containing dissolved organics and electrolytes. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Edward O. Edney

Swartz, E.C., Stockburger, L., McGaughy, E., McDonald-Buller, E., Allen, D., Michele, C., Lane, D.A., Pan, Y., and Gundel, L.A. Inter-site comparison of ambient aerosols in the Houston area during TEXAQs-2000. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Leonard Stockburger

Seila, R.L., and Lonneman, W.A. VOCs in ambient air near World Trade Center site. Presented at: 12th Conference of the International Society of Exposure Analysis, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Robert L. Seila

Vyas, V.M., Wang, S.W., Sun, Q., Chandrasekar, A., Shade, P., Georgopoulos, P.G., Burke, J.M., and Ozkaynak, H. Advancements in source-to-dose analysis of population exposures to ozone. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** A. Haluk Ozkaynak

Landis, M.S., Stevens, R.K., Prestbo, E., and Schaedlich, F.A. Standardized automated and manual methods to speciate mercury: field and laboratory studies. Presented at: 223rd American Chemical Society National Meeting, Orlando, FL, April 7-11, 2002.

4/7/2002

***Contact:*** Matthew S. Landis

Landis, M.S., and Stevens, R.K. Preliminary results from the US EPA mercury speciation network and aircraft measurement campaigns. Presented at: 223rd American Chemical Society National Meeting, Orlando, FL, April 7-11, 2002.

4/7/2002

***Contact:*** Matthew S. Landis

Vette, A.F., Landis, M.S., Williams, R.W., LaPosta, D., Kantz, M., Filippelli, J., Webb, L., Ellestad, T.G., and Vallero, D.A. Concentrations and speciation of PM at Ground Zero and Lower Manhattan following the collapse of the WTC. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Curtis M. Morris

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Vette, A.F., Landis, M.S., Swartz, E.C., Williams, R.W., LaPosta, D., Kantz, M., Filippelli, J., Webb, L., Ellestad, T.G., and Vallero, D.A. Concentrations and composition of PM at Ground Zero and Lower Manhattan following the collapse of the WTC. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002. 10/7/2002

***Contact:*** Curtis M. Morris

Liu, S., and Pleil, J.D. Methods development and demonstration for assessing level of native pesticides, PCBs, PAHs, and VOCs in human blood. Presented at: American Chemical Society, Orlando, FL, April 7-11, 2002. 4/7/2002

***Contact:*** Joachim D. Pleil

Lewis, R.G., Stout, II, D.M., Fortune, C.R., and Ellenson, W.D. New application of passive sampling devices for assessment of respiratory exposure to pesticides in indoor air. Presented at: Pittcon 2002, New Orleans, LA, March 17-22, 2002. 3/17/2002

***Contact:*** Curtis M. Morris

Anderson, Y.B., Vallero, D.A., and Leovic, K.W. Innovative approaches to human exposure assessment in environmental justice communities. Presented at: Environmental Science & Technology Conference, Winston-Salem, NC, September 8-10, 2002. 9/8/2002

***Contact:*** Kelly Leovic

Kendall, M., Bonnanno, L., Wallace, L.A., and Lippmann, M. Indoor-outdoor PM<sub>2.5</sub> and PM<sub>10</sub> in New York City. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Lance A. Wallace

Swartz, E.C., Stockburger, L., Vette, A.F., and Vallero, D.A. Polycyclic aromatic hydrocarbons (PAHs) and other semi-volatile organic compounds collected in New York City in response to the events of 9/11. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002. 10/7/2002

***Contact:*** Daniel Vallero

Lyu, C., Wilson, N.K., Chuang, J.C., Satola, J., and Morgan, M.K. Recruitment and field sampling in the CTEPP North Carolina and Ohio field studies. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Ellen W. Streib

Cohen-Hubal, E.A., Suggs, J.C., Tulve, N.S., and Nishioka, M.G. Characterizing pesticide residue transfer efficiencies using fluorescent tracer imaging techniques. Presented at: American Industrial Hygiene Conference and Exhibition, San Diego, CA, June 1-6, 2002. 6/1/2002

***Contact:*** Elaine A. Cohen-Hubal

Kendall, M., Hsu, S.I., Lopez, P., Wallace, L.A., and Lippmann, M. Relating personal PM and PM-associated elemental carbon exposures to cardiovascular and pulmonary symptoms in a high-risk subpopulation. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. 8/11/2002

***Contact:*** Lance A. Wallace

Tulve, N.S., Hore, P., Cohen-Hubal, E.A., and Sheldon, L.S. Use of the macroactivity approach to assess children's dermal exposure to pesticides in residential environments. Presented at: American Industrial Hygiene Conference and Exhibition, San Diego, CA, June 1-6, 2002. 6/1/2002

***Contact:*** Nicolle Tulve

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Zhou, J., Jacob, D., Friedman, W., Fraser, A., Zeldin, D., Thorne, P., Cave, C., and Tulve, N.S. National surveys of multiple environmental hazards to young children in homes and child care centers. Presented at: American Industrial Hygiene Conference and Exhibition, San Diego, CA, June 1-6, 2002.

1/1/2002

***Contact:*** Nicolle Tulve

Fortmann, R.C., Sheldon, L.S., Cohen-Hubal, E.A., Morgan, M.K., Stout, II, D.M., Thomas, K.W., Tulve, N.S., and Whitaker, D.A. The EPA National Exposure Research Laboratory children's pesticide exposure measurement program. Presented at: Indoor Air 2002 The 9th International Conference on Indoor Air Quality and Climate, Monterey, CA, June 30-July 5, 2002.

6/30/2002

***Contact:*** Ellen W. Streib

Stout, II, D.M., and Mason, M.A. The distribution of chlorpyrifos following a crack and crevice type applicaiton in the U.S. EPA indoor air quality (IAQ) test house. Presented at: Indoor Air 2002 The 9th International Conference on Indoor Air Quality and Climate, Monterey, CA, June 30-July 5, 2002.

6/30/2002

***Contact:*** Dan Stout

Vette, A.F., Rea, A.W., and Williams, R. Gaseous co-pollutants associated with particulate matter-results from the NERL RTP pm panel study. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Ronald W. Williams

Reid, C.M., Ryan, P.B., Wheeler, A., Wallace, L.A., and Suh, H.H. Associations between outdoor particulate (PM<sub>2.5</sub>) concentrations and gaseous co-pollutant exposure levels for COPD and MI cohorts in Atlanta, GA. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Leovic, K.W., Sheldon, L.S., Thomas, K.W., Highsmith, V.R., Tulve, N.S., Robertson, G.L., Hammerstom, K., Quackenboss, J.J., Melnyk, L.J., Berry, M., Pellizari, E., Lebowitz, M., and Ryan, P.B. Lessons learned from the National Human Exposure Assessment Survey (NHExAS). Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Kelly Leovic

Rea, A.W., Croghan, C., Thornburg, J., Rodes, B., and Williams, R.W. PM concentrations associated with personal activities based on real-time personal nephelometry data from the NERL RTP PM panel study. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Ronald W. Williams

Heermance, E., Falconer, R., and Morgan, M.K. Enantiomeric composition of chiral pesticides in human adipose tissue and breast milk. Presented at: 223rd American Chemical Society National Meeting, Orlando, FL, April 7-11, 2002.

4/7/2002

***Contact:*** Dan Stout

Thomas, K.W., Sheldon, L., Sandler, D., Blair, A., and Alavanja, M.C.R. Agricultural health study/pesticide exposure study. Presented at: AHS National Advisory Panel Meeting, Rockville, MD, February 20-22, 2002.

2/20/2002

***Contact:*** Kent W. Thomas

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Larson, T.V., Liu, L.J.S., Allen, R., and Lewtas, J. Indoor-outdoor-personal relationships of selected fine particle trace elements in Seattle, WA. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Lance A. Wallace

Wilson, N.K., Iachen, R., Chuang, J.C., Gordon, S.M., Evans, G.F., Feder, P., Strauss, W., Ozkaynak, H., and Sheldon, L.S. Children's total exposure to persistent pesticides and other persistent organic pollutants (CTEPP): an overview. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ellen W. Streib

Williams, R., Rea, A.W., Suggs, J.C., Leovic, K., Vette, A.F., Sheldon, L.S., Rodes, C., Thornburg, J., Ejire, A., and Sanders, Jr., W. Exposure assessment from the NERL Research Triangle Park particulate matter panel study. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ronald W. Williams

Sheldon, L., Williams, R.W., Suggs, J.C., Evans, G.F., Rea, A.W., Vette, A.F., Burke, J.M., Croghan, C.W., Leovic, K.W., Creason, J.P., Walsh, D., Rodes, C., Thornburg, J., Lawless, P., Ejire, A., and Sanders, Jr., W. Summary findings from the U.S. EPA's particulate matter panel studies. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ronald W. Williams

Williams, R.W., Riediker, M., Sheldon, L.S., Devlin, R.B., Griggs, TR, Stevens, Carvin, Pleil, J.D., and McCorquodale, Steve. Preliminary findings on the assessment of potential car-related occupational PM and air toxic exposure to patrol troopers (COPP study). Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ronald W. Williams

Thomas, K.W., Sheldon, L.S., Gordon, S.M., Jones, M., Reynolds, S., Raymer, J., Akland, G.G., and Dosemeci, M. Interim results from the agricultural health study/pesticide exposure study. Presented at: International Society of Exposure Analysis, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Kent W. Thomas

Cohen-Hubal, E.A., Akland, G.G., Leovic, K., Raymer, J., and Sheldon, L.S. Feasibility of using the macroactivity approach to assess children's dermal exposure to pesticides. Presented at: 12th Conference of the International Society of Exposure Analysis, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Elaine A. Cohen-Hubal

Brinkman, M.C., Finegold, J.K., Chuang, J.C., Lyu, C., Cashwell, J., Wilson, N.K., Gordon, S.M., Morgan, M.K., and Croghan, C. The CTEPP Database. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ellen W. Streib

Chuang, J.C., Junod, N., Wilson, N.K., Brinkman, M.C., and Morgan, M.K. Multimedia chemical analysis plan for children's aggregate exposure field studies in North Carolina and Ohio. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002.

8/11/2002

**Contact:** Ellen W. Streib

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Morgan, M.K., Wilson, N.K., Chuang, J.C., Junod, N., Brinkman, M.C., and Lyu, C. Levels of organochlorine, organophosphate, and pyrethroid pesticides in CTEPP North Carolina multimedia samples. Presented at: International Society of Exposure Analysis 2002, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Ellen W. Streib

Gordon, S.M., Brinkman, M.C., Satola, J., Wallace, L.A., Weisel, C.E., and Shin, J.Y. Controlled, short-term dermal and inhalation exposure to MTBE and dibromochloromethane. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Wallace, L.A., and Ott, W.R. Application of the random component superposition (RCS) model to PM2.5 personal exposure and indoor air quality measurements in different cities. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Tulve, N.S., Whitaker, D., Fortmann, R., Brown, H., Bozeman, E.R., Hilliard, A., and Naeher, L.P. Environmental measurements of organophosphate and pyrethroid pesticides to assess exposures of young children living in Jacksonville, FL. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Nicole Tulve

Brown, K.W., Suh, H.H., Wallace, L.A., and Koutrakis, P. Indoor and outdoor source contributions to personal PM2.5 for a panel of individuals with cardiovascular disease or COPD living in Boston, MA. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Allen, R., Larson, T.V., Wallace, L.A., and Liu, L.-J.S. The use of light scattering data to estimate the contribution of indoor- and outdoor-generated particles to indoor air. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Chang, L.T., Suh, H.H., Wheeler, A., Koutrakis, P., Lau, G., Turpin, B., Colome, S., and Wallace, L.A. Personal, indoor, and outdoor concentrations of PM2.5, particulate nitrate, and elemental carbon for individuals with COPD in Los Angeles, CA. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Liu, L.-J.S., Kalman, D., Kaufman, J., Koenig, J.Q., Larson, T.V., Sheppard, L., Lewtas, J., and Wallace, L.A. Characterization of particulate matter and co-pollutants exposures for compromised and healthy elderly adults in Seattle, WA, 1999-2001. Presented at: International Society for Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

Wheeler, A., Suh, H., Koutrakis, P., Reid, C., Wallace, L.A., and Ryan, B. Analysis of components of particulate matter (PM2.5) for an exposure assessment study of two sensitive cohorts in Atlanta, GA. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Lance A. Wallace

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	<b><i>Presented</i></b>	<b><i>Published</i></b>
Kissel, J.C., Showlund, R., Shirai, J.H., Suggs, J.C., and Cohen-Hubal, E.A. Investigation of transfer of fluorescent tracers from surfaces to skin. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. <b><i>Contact:</i></b> Elaine A. Cohen-Hubal	8/11/2002	
Riley, W.J., McKone, T.E., and Cohen-Hubal, E.A. Linking dermal modeling and loading data to predict long-term doses from intermittent dermal contact. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. <b><i>Contact:</i></b> Elaine A. Cohen-Hubal	8/11/2002	
Vette, A.F., and Vallero, D.A. Environmental monitoring at Ground Zero and Lower Manhattan following the collapse of the WTC. Presented at: NCCU Seminar Class, Durham, NC, March 18, 2002. <b><i>Contact:</i></b> Alan Vette	3/18/2002	
Alavanja, M., Samanic, C., Dosemeci, M., Lubin, J.H., Tarone, R., Lynch, C., Knott, C., Thomas, K.W., Hoppin, J.A., Barker, J., Coble, J., Sandler, D., and Blair, A. Use of agricultural pesticides and prostate cancer risk in the Agricultural Health Study Cohort. Presented at: International Conference on Pesticide Exposure and Health, Bethesda, MD, July 8-12, 2002. <b><i>Contact:</i></b> Kent W. Thomas	7/8/2002	
Thornburg, J., Rhodes, C., Rhodes, E., and Williams, R.W. Relationship between HVAC system operation, air exchange rate, and indoor-outdoor particulate matter ratios. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. <b><i>Contact:</i></b> Ronald W. Williams	8/11/2002	
Cohen-Hubal, E.A. Issues in understanding dermal exposures resulting from contact with contaminated surfaces, measuring surface contamination, and characterizing transfers. Presented at: International Conference on Occupational and Environmental Exposures of the Skin, Arlington, VA, September 8-11, 2002. <b><i>Contact:</i></b> Elaine A. Cohen-Hubal	9/8/2002	
Williams, R.W., Rea, A.W., Suggs, J.C., Leovic, K.W., Vette, A.F., Croghan, C., Sheldon, L.S., Rhodes, C., Thornburg, J., Ejire, A., and Sanders, Jr., W. A comparison of environmental exposures to selected air pollutants between two apparent socio-economically diverse populations in the Research Triangle Park metropolitan area. Presented at: 2002 NC Environmental Justice Summit, Durham, NC, October 18-19, 2002. <b><i>Contact:</i></b> Ronald W. Williams	10/18/2002	
Egeghy, P.P. Mixed models analysis of urbanization level on chlorpyrifos exposure. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002. <b><i>Contact:</i></b> James J. Quackenboss	8/11/2002	
Ramanathan, K., Apostol, A.B., Rogers, K.R., and Gary, R. A fluorescence based assay for DNA damage: induced by radiation, chemicals and enzymes. Presented at: American Chemical Society, Orlando, FL, April 7-11, 2002. <b><i>Contact:</i></b> Kumaran Ramanathan	4/7/2002	
Mishra, N.N., Rogers, K.R., and Wang, J. Chromium electroanalysis at screen printed electrode modified by thin films of nickel. Presented at: American Chemical Society, Orlando, FL, April 7-11, 2002. <b><i>Contact:</i></b> Kim R. Rogers	4/7/2002	



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Robertson, G.L. Environmental chemical monitoring in the U.S.. Presented at: Passive Monitoring Symposia, London, UK, September 23-28, 2002.

9/23/2002

***Contact:*** Gary L. Robertson

Furtaw, Jr., E.J. Overview of the U.S. EPA NERL's Human Exposure Modeling. Presented at: Theories and Practices in Toxicology and Risk Assessment, Cincinnati, OH, April 15-18, 2002.

4/15/2002

***Contact:*** Edwin J. Furtaw

Rigas, M.L., Okino, M.S., and Quackenboss, J.J. Pharmacokinetic models in the design of biomonitoring programs. Presented at: International Society of Exposure Analysis 2002 Conference, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Marc L. Rigas

Scheffe, R., Solomon, P.A., Jones, M., and Pitchford, M. Overview and status of the PM supersites program. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Paul A. Solomon

Dary, C.C., Furtaw, Jr., E.J., Power, F.W., and Blancato, J.N. Physiologically-based pharmacokinetic and pharmacodynamic (PBPK/PD) model for predicting the dermal dose and disposition of organophosphorus insecticides. Presented at: Society for Risk Analysis Meeting, New Orleans, LA, December 8-11, 2002.

12/8/2002

***Contact:*** Curtis C. Dary

Furtaw, Jr., E.J., Bennett, D.H., and McKone, T.E. An indoor pesticide air and surface concentration model. Presented at: 12th Conference of the International Society of Exposure Analysis, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Edwin J. Furtaw

Hutzell, W.T. A regional model for PCDD/F's based on a photochemical model for air quality and particulate matter. Presented at: AGU Fall Meeting, San Francisco, CA, December 6-10, 2002.

12/6/2002

***Contact:*** William T. Hutzell

Lewtas, J., Meyers, S., Maykut, N., Simpson, C., Kalman, D., Liu, L.-J.S., and Larson, T.V. Attribution of particle exposure and risk to combustion source emissions based on personal PAH exposure and urinary metabolites. Presented at: International Society of Exposure Analysis, Vancouver, Canada, August 11-15, 2002.

8/11/2002

***Contact:*** Joellen Jungers (Lewtas)

Isaacs, K.K., Evans, M.V., and Harris, T.R. Visualization-based analysis for a mixed-inhibition binary PBPK model: determination of inhibition mechanism. Presented at: Fifth Tennessee Conference on Biomedical Engineering, Memphis, TN, April 4-6, 2002.

4/4/2002

***Contact:*** Marina Evans

Lewtas, J., Maykut, N., Kim, E., and Larson, T. Improving source profiles and apportionment of combustion sources using thermal carbon fractions in multivariate receptor models. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Joellen Jungers (Lewtas)

Schantz, M.A., Wise, S., and Lewtas, J. Interlaboratory comparison studies for characterization of organic compounds in particulate matter. Presented at: American Association for Aerosol Research, Charlotte, NC, October 7-11, 2002.

10/7/2002

***Contact:*** Joellen Jungers (Lewtas)



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Lewtas, J., Maykut, N., Kim, E., and Larson, T. Source apportionment of PM<sub>2.5</sub> in Seattle, WA urban improve site: comparison of three receptor models and source profiles. Presented at: 2003 AAAR PM Meeting, Pittsburgh, PA, March 31-April 4, 2003.

**Contact:** Joellen Jungers (Lewtas)

***Presented Published***

3/31/2002

Dary, C.C., Knaak, J.B., Power, F.W., Thompson, C.B., and Blancato, J.N. Predictive organophosphorus (OP) pesticide QSARS and PBPK/PD models for risk assessment of susceptible sub-populations. Presented at: Society of Toxicology, Las Vegas, NV, September 26-27, 2002.

**Contact:** Jerry Blancato

9/26/2002

Robertson, G.L., Hern, S.C., and Rogers, K.R. Time-integrated exposure measures to improve the predictive power of exposure classification for epidemiologic studies. Presented at: National Children's Study Meeting, Baltimore, MD, December 17-18, 2002.

**Contact:** Gary L. Robertson

12/17/2002

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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2002 - Dec 31, 2002**

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<b><i>Contact:</i></b> Alan H. Huber		
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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2002 - Dec 31, 2002**

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***Technical Information Manager: Liz Hope (919) 541-2785***

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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2002 - Dec 31, 2002**

***Presented Published***

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Fortmann, R.C., Sheldon, L.S., Cohen-Hubal, E.A., Morgan, M.K., Stout, II, D.M., Thomas, K.W., Tulve, N.S., and Whitaker, D.A. The EPA National Exposure Research Laboratory children's pesticide exposure measurement program. Presented at: Indoor Air 2002, Monterey, CA, June 30-July 5, 2002. EPA/600/A-02/032 (NTIS PB2002-106286).

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***Contact:*** Gary L. Robertson





# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2001 - Dec 31, 2001**

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Burke, J.M., Xue, J., and Ozkaynak, H. Population exposures to particulate matter: a comparison of exposure model predictions and measurement data. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

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***Technical Information Manager: Liz Hope (919) 541-2785***

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***Technical Information Manager: Liz Hope (919) 541-2785***

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***Contact:*** Andrew B. Lindstrom

Medina-Vera, M. Science careers at EPA: an exciting opportunity to serve. Presented at: NIH Strategies for Success in Science Seminar Series, Bethesda, MD, January 25, 2001.

1/25/2001

***Contact:*** Myriam Medina-Vera

Pleil, J.D., Leavens, TL, Colon, M., Case, M.W., Prah, J.D., and Ashley, D.L. Measurement of exhaled breath and venous blood to develop a physiologically based pharmacokinetic model for human exposure to methyl tertiary-butyl ether and the production of the biomarker tertiary-butyl alcohol. Presented at: Environmental Sampling and Analysis Seminar, Okinawa, Japan, July 8-22, 2001.

7/8/2001

***Contact:*** Joachim D. Pleil

Pleil, J.D., Colon, M., and Lindstrom, A.B. New methodology for identifying potential human biomarkers by collection and concentration of exhaled breath condensate. Presented at: Environmental Sampling and Analysis Seminar, Okinawa, Japan, July 8-22, 2001.

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***Contact:*** Joachim D. Pleil

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

***Presented Published***

Pleil, J.D., and Lindstrom, A.B. A brief history of the development of exposure assessment methods at US EPA/NERL using alveolar breath as the biological medium. Presented at: Environmental Sampling and Analysis Seminar, Okinawa, Japan, July 8-22, 2001.

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***Contact:*** Joachim D. Pleil

Pleil, J.D., and Colon, M. Breath measurement of total body burden of JP-8 jet fuel for epidemiological study. Presented at: 2nd International Conference on Jet Fuel Exposure, San Antonio, TX, August 7-12, 2001.

8/7/2001

***Contact:*** Joachim D. Pleil

Lindstrom, A.B., and Pleil, J.D. Alveolar breath sampling and analysis in human exposure assessment studies. Presented at: Department of Anaesthesia and Intensive Care Medicine, University Hospital of Rostock, Rostock, Germany, September 25, 2001.

9/25/2001

***Contact:*** Andrew B. Lindstrom

Medina-Vera, M., Harper, S.L., Wright, L.H., Coppedge, E.A., Lumpkin, M.S., and Ferrell, G. Development of chemical methods to characterize exposure to EDCs in the Neuse River Basin. Presented at: Effective Risk Management of Endocrine Disrupting Chemicals, Cincinnati, OH, September 18-19, 2001.

9/18/2001

***Contact:*** Myriam Medina-Vera

Medina-Vera, M., Wright, L.H., and Lumpkin, M.S. Methods for the analysis of alkylphenol ethoxylates and derivatives. Presented at: American Chemical Society 221st National Meeting, San Diego, CA, April 1-5, 2001.

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***Contact:*** Myriam Medina-Vera

Williams, R.W., Rea, A.W., Suggs, J.C., Leovic, K.W., Vette, A.F., Sheldon, L.S., Rodes, C.E., Thornburg, J., Ejire, A., and Sanders, W., Jr. Mass concentration relationships from the NERL RTP particulate matter panel study. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Ronald W. Williams

Stout, II, D.M., Mason, M.A., and Vallero, D.A. The spatial and temporal distribution of chlorpyrifos in the U.S. EPA indoor air quality (IAQ) test house following crack and crevice type applications. Presented at: International Conference of Pesticide Exposure and Health Society for Occupational and Environmental Health, Bethesda, MA, December 17-21, 2001.

12/17/2001

***Contact:*** Dan Stout

Rea, A.W., Williams, R.W., Rodes, B., Hermann, M., and Thornburg, J. Real-time personal nephelometer and time activity data from the NERL RTP PM panel study. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Ronald W. Williams

Fortmann, R.C. The EPA/ORD/NERL's Human Exposure Measurements Program - children's focus. Presented at: Non-Dietary Exposure Task Force Information Meeting, Fort Lauderdale, FL, December 4, 2001.

12/4/2001

***Contact:*** Ellen W. Streib

Thomas, K.W., Sandler, D.P., Blair, A., and Alavanja, M.C.R. Agricultural health study/pesticide exposure study. Presented at: AHS National Advisory Panel Meeting, Chapel Hill, NC, March 8-9, 2001.

3/8/2001

***Contact:*** Ellen W. Streib

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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Cohen-Hubal, E.A., and Sheldon, L.S. The US EPA's dermal exposure research program in support of the food quality protection act. Presented at: X2001 Exposure Assessment in Epidemiology and Practice Conference, Goteborg, Sweden, June 10-13, 2001.

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***Contact:*** Elaine A. Cohen-Hubal

Lyu, C., Chuang, J.C., Wilson, N.K., and Morgan, M.K. Recruitment strategies for an exposure measurement study of preschool children. Presented at: American Public Health Association, Atlanta, GA, October 21-26, 2001.

10/21/2001

***Contact:*** Marsha K. Morgan

Rea, A.W., Williams, R.W., Sheldon, L.S., Thornburg, J., and Rodes, C. Personal particulate matter exposure monitoring: identifying important sources, activities, and locations based on data from the NERL RTP PM panel study. Presented at: American Association for Aerosol Research, Portland, OR, October 15-19, 2001.

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***Contact:*** Ronald W. Williams

Vette, A.F., Williams, R.W., Riediker, M., and Thornburg, J. Indoor/outdoor particle size distributions measured in select homes in the Raleigh-Durham-Chapel Hill, NC area. Presented at: American Association for Aerosol Research, Portland, OR, October 15-19, 2001.

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***Contact:*** Ronald W. Williams

Morgan, M.K., Vallero, D.A., Chuang, J.C., Lyu, C., and Wilson, N.K. Emerging approaches for assessing the exposure of children to endocrine disruptors. Presented at: National Ground Water Association 2nd International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water, Minneapolis, MI, October 9-11, 2001.

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***Contact:*** Marsha K. Morgan

Wilson, N.K., Chuang, J.C., Lyu, C., and Morgan, M.K. PAH concentrations in multiple media at the homes and child day care centers of 130 North Carolina children. Presented at: 18th International Symposium on Polycyclic Aromatic Compounds, Cincinnati, OH, September 9-13, 2001.

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***Contact:*** Ellen W. Streib

Clothier, J.M., Camann, D.E., Thomas, K.W., and Gordon, S.M. Hand wipe subsampling method for use with biomarker measurements in the agricultural health study/pesticide exposure study. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

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***Contact:*** Ellen W. Streib

Falconer, R.L., and Morgan, M.K. Occurrence of chiral pesticides in human breast milk and other media. Presented at: Society of Environmental Toxicology and Chemistry 22nd Annual Meeting, Baltimore, MD, November 11-15, 2001.

11/11/2001

***Contact:*** Marsha K. Morgan

Wilson, N.K., Lyu, C., Chuang, J.C., and Morgan, M.K. CTEPP: recruiting and field sampling in North Carolina and Ohio. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Marsha K. Morgan

# NERL/HEASD Publications

Technical Information Manager: Liz Hope (919) 541-2785

Jan 1, 2001 - Dec 31, 2001

**Presented Published**

Morgan, M.K., Chuang, J.C., Lyu, C., and Wilson, N.K. CTEPP: the database. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Marsha K. Morgan

Fortmann, R., and Sheldon, L.S. Demonstration of low cost, low burden exposure monitoring strategies for use in longitudinal cohort studies. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

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Rodes, C.E., Lawless, P.A., Thornburg, J., Zweidinger, R.B., Norris, G.A., Williams, R.W., Evans, G.F., Wallace, L.A., Sheldon, L.S., and McDow, S.R. The potential influences of face velocity on PM artifact losses for exposure samplers using teflon filter collection substrates. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Ronald W. Williams

Leovic, K.W., Highsmith, V.R., Sheldon, L.S., Williams, R.W., Cohen-Hubal, E.A., Morgan, M.K., Stout, II, D.M., and Ejire, A. Recruiting, retaining, and reporting exposure study results to participants and the public. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/1/2001

**Contact:** Kelly Leovic

Leovic, K.W., Williams, R.W., Ejire, A., Sanders, W., Jr., Thornburg, J., and Rodes, C.E. Participant recruitment and retention for the NERL RTP PM panel study. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Kelly Leovic

Norris, G.A., Tolocka, M.P., Williams, R.W., and Rodes, C.E. Particulate organic carbon measurements collected with low flow personal samplers. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Ellen W. Streib

Tulve, N.S., Hore, P., Cohen-Hubal, E.A., Freeman, N.C.G., Lioy, P.J., and Sheldon, L.S. Use of macroactivity approach to assess dermal exposure. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Nicole Tulve

Akland, G.G., Cohen-Hubal, E.A., Raymer, J.H., Sheldon, L.S., and Pellizzari, E.D. Pesticide screening results from eight daycare centers. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Elaine A. Cohen-Hubal

Nishioka, M.G., Cohen-Hubal, E.A., Ivancic, W., Andrews, K., and Sowry, J. Dermal and mouthing transfers of surface residues measured using fluorescence imaging. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Elaine A. Cohen-Hubal

Cohen-Hubal, E.A., Akland, G.G., Raymer, J.H., Pellizzari, E.D., and Sheldon, L.S. Development and evaluation of an aggregate surface sampling method for use in assessing dermal exposures of young children. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001. 11/4/2001

**Contact:** Elaine A. Cohen-Hubal

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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Vette, A.F., Williams, R.W., Riediker, M., and Thornburg, J. Particle size distributions from select residences participating in the NERL RTP PM panel study. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

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***Contact:*** Ronald W. Williams

Thomas, K.W., Sheldon, L.S., Gordon, S.M., Reynolds, S., Lynch, C., and Alavanja, M. Agricultural health study/pesticide exposure study: year 1 measurement results. Presented at: International Conference of Pesticide Exposure and Health, Bethesda, MD, December 17-21, 2001.

12/17/2001

***Contact:*** Ellen W. Streib

Cohen-Hubal, E.A., Akland, G.G., Leovic, K.W., Raymer, J.H., and Sheldon, L.S. Feasibility of using the macroactivity approach to assess children's dermal exposure to pesticides. Presented at: SOEH International Conference of Pesticide Exposure and Health, Bethesda, MA, December 17-21, 2001.

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***Contact:*** Elaine A. Cohen-Hubal

Sheldon, L.S., Cohen-Hubal, E.A., and Fortmann, R.C. The EPA children's pesticide exposure measurement program. Presented at: Workshop on Exposure of Children to Pesticides, Berlin, Germany, September 27-29, 2001.

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***Contact:*** Linda Sheldon

Williams, R.W., Ryan, B., Hern, S.C., Kildosher, L., Witherspoon, C.L., and Hammerstrom, K. Personal exposures to polycyclic aromatic hydrocarbons associated with the NHEXAS pilot. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

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***Contact:*** Ronald W. Williams

Robertson, G.L., Reses, J., Nishioka, M.G., and Lebowitz, M.D. Concentrations of pesticide from dermal surfaces: a comparison of NHEXAS & AZ border samples. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Gary L. Robertson

Van Emon, J.M., Brumley, W.C., Reed, A.W., and Chuang, J.C. Human exposure assessment using immunoassay. Presented at: American Chemical Society 221st National Meeting, Immunochemistry Summit IX Symposium, San Diego, CA, April 1-5, 2001.

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***Contact:*** Jeanette M. Van Emon

Van Emon, J.M., Brumley, W.C., and Reed, A.W. Elegant environmental immunoassays. Presented at: American Chemical Society 221st National Meeting, Immunochemistry Summit IX Symposium, San Diego, CA, April 1-5, 2001.

4/1/2001

***Contact:*** Jeanette M. Van Emon

Robertson, G.L., Petty, J.D., Gale, R.W., Cranor, W.L., and Huckins, J.N. A survey of indoor air contaminants using semipermeable membrane devices. Presented at: AWMA Annual Conference, Orlando, FL, June 24-28, 2001.

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***Contact:*** Gary L. Robertson

Rogers, K.R., Ramanathan, K., and Apostol, A.B. Detection of DNA damage using melting analysis techniques. Presented at: Chemical Sensors and Interfacial Design Conference, Ciocco, Italy, May 6-11, 2001.

5/6/2001

***Contact:*** Kim R. Rogers



# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

***Presented Published***

Van Emon, J.M. Evolution of environmental immunochemistry. Presented at: 22nd American Chemical Society National Meeting, Chicago, IL, August 26-30, 2001.

8/26/2001

***Contact:*** Jeanette M. Van Emon

Robertson, G.L., Quackenboss, J.J., Hern, S.C., and Thompson, C.B. The human exposure database system (HEDS)-putting the NHEXAS data on-line. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Gary L. Robertson

Bennett, D.H., and Furtaw, Jr., E.J. A fugacity-based indoor residential pesticide fate model. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Edwin J. Furtaw

Bennett, D.H., and Furtaw, Jr., E.J. The indoor fugacity model. Presented at: Society of Environmental Toxicology and Chemistry 2001 Annual Meeting, Baltimore, MD, November 11-15, 2001.

11/11/2001

***Contact:*** Edwin J. Furtaw

Sohn, M.D., McKone, T.E., Rigas, M.L., Blancato, J.N., Power, F.W., and Tsang, A.M. Reconstructing exposure scenarios using dose biomarkers - an application of bayesian uncertainty analysis. Presented at: International Society of Exposure Analysis Annual Meeting, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Marc L. Rigas

Quackenboss, J.J., Sheldon, L.S., Hammerstrom, K., Robertson, G.L., Hern, S.C., and Leovic, K.W. An overview of the National Human Exposure Assessment Survey (NHEXAS) Phase I studies. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** James J. Quackenboss

Hern, S.C., Bronson, D., Osgood, D., Rosales, C., and O'Rourke, M.K. Modeling of macroscale agricultural elements in pesticide exposure. Presented at: 11th Annual Meeting of the International Society of Exposure Analysis, Charleston, SC, November 4-8, 2001.

11/4/2001

***Contact:*** Stephen C. Hern

Maykut, N., Lewtas, J., and Larson, T.V. Source apportionment of PM 2.5 and carbon in Seattle using chemical mass balance and positive matrix factorization. Presented at: AWMA/AGU International Specialty Conference, Bend, OR, October 2-5, 2001.

10/2/2001

***Contact:*** Joellen Jungers (Lewtas)

Maykut, N., Lewtas, J., and Larson, T.V. Source apportionment of PM 2.5 and carbon in Seattle using chemical mass balance and positive matrix factorization. Presented at: American Association for Aerosol Research, Portland, OR, October 15-19, 2001.

10/15/2001

***Contact:*** Joellen Jungers (Lewtas)

Lewtas, J., Schantz, M.A., and Wise, S.A. Characterization of fine particle associated organic compounds: interlaboratory comparison and development of standard reference materials. Presented at: American Association for Aerosol Research, Portland, OR, October 15-19, 2001.

10/15/2001

***Contact:*** Joellen Jungers (Lewtas)

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

***Presented Published***

Lewtas, J. Characterizing the sources of human exposure to mutagenic and carcinogenic chemicals in airborne fine particles. Presented at: International Conference on Environmental Mutagens, Shizuoka, Japan, October 21-26, 2001.

10/21/2001

***Contact:*** Joellen Jungers (Lewtas)

Lewtas, J., Binkova, B., Myers, S.R., Lenicek, J., Subrt, P., and Sram, R.J. Biomarkers of exposure and metabolic susceptibility to fine particle air pollution. Presented at: BIOMED Seminar, Copenhagen, Denmark, April 26-28, 2001.

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***Contact:*** Joellen Jungers (Lewtas)

## ***BOOK***

Solomon, P.A., Norris, G.A., Landis, M.S., and Tolocka, M.P. "Chemical analysis methods for atmospheric aerosol components." In: Aerosol Measurements, Chapter 11 New York, NY: Van Nostrand Reinhold 2001.

1/8/2001

***Contact:*** Paul A. Solomon

Mishra, N.N., Pedersen, J.A., and Rogers, K.R. "Highly sensitive assay for anticholinesterase compounds using 96 well plate format." In: Chemicals in the Environment: Fate, Impacts, and Remediation, Chapter 16 M. L. Phillips (Ed.), Washington, DC: American Chemical Society 2001, 289-305.

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***Contact:*** Kim R. Rogers

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Rodes, C.E., and Wiener, R.W. "Indoor aerosols and exposure assessment." In: Aerosol Measurement Principles, Techniques and Applications, Chapter 29 New York, NY: John Wiley & Sons, Inc. 859-885.

11/1/2001

***Contact:*** Russell W. Wiener

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Buck, R.J., Ozkaynak, H., Xue, J., Zartarian, V., and Hammerstrom, K. Modeled estimates of chlorpyrifos exposure and dose for the Minnesota and Arizona NHEXAS populations. Journal of Exposure Analysis and Environmental Epidemiology 11 (3):253-268 (2001). EPA/600/J-02/228.

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***Contact:*** A. Haluk Ozkaynak

Burke, J.M., Zufall, M.J., and Ozkaynak, H. A population exposure model for particulate matter: case study results for PM 2.5 in Philadelphia, PA. Journal of Exposure Analysis and Environmental Epidemiology 11 (6):470-489 (2001). EPA/600/J-02/125.

12/1/2001

***Contact:*** Janet Burke

Edney, E.O., Driscoll, D.J., Weathers, W.S., Kleindienst, T.E., Conver, T.S., McIver, C.D., and Li, W. Formation of polyketones in irradiated toluene/propylene/NOx/air mixtures. Aerosol Science and Technology 35 (6):998-1008 (2001). EPA/600/J-02/215.

12/1/2001

***Contact:*** Edward O. Edney

Seila, R.L., Main, H.H., Arriaga, J.L., Martinez, G., and Ramadan, A.B. Atmospheric volatile organic compound measurements during the 1996 Paso del Norte ozone study. Science of the Total Environment 276 (1-3):153-169 (2001). EPA/600/J-01/250.

9/4/2001

***Contact:*** Robert L. Seila

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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- Mukerjee, S., Shadwick, D.S., Smith, L., Somerville, M.C., Dean, K.E., and Bowser, J.J. Techniques to assess cross-border air pollution and application to a U.S.-Mexico border region. Science of the Total Environment 276 (1-3):205-224 (2001). EPA/600/J-01/234. 7/20/2001  
**Contact:** Shaibal Mukerjee
- Smith, L., Mukerjee, S., Monroy, G.J., and Keene, F.E. Preliminary assessments of spatial influences in the Ambos Nogales region of the US-Mexican border. Science of the Total Environment 276 (1-3):83-92 (2001). EPA/600/J-01/235. 7/20/2001  
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- Mukerjee, S. Selected air quality trends and recent air pollution investigations in the U.S.-Mexico border region. Science of the Total Environment 276 (1-3):1-18 (2001). EPA/600/J-01/233. 8/1/2001  
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- Rodes, C.E., Lawless, P.A., Evans, G.F., Sheldon, L.S., Williams, R.W., Vette, A.F., Creason, J.P., and Walsh, D.B. The relationships between personal PM exposures for elderly populations and indoor and outdoor concentrations for three retirement center scenarios. Journal of Exposure Analysis and Environmental Epidemiology 11 (2):103-115 (2001). EPA/600/J-01/312. 3/1/2001  
**Contact:** Roy B. Zweidinger
- Mamane, Y., Willis, R.D., and Conner, T.L. Evaluation of computer-controlled scanning electron microscopy applied to an ambient urban aerosol sample. Aerosol Science and Technology 34 (1):97-107 (2001). EPA/600/J-01/081. 3/27/2001  
**Contact:** Teri L. Conner
- Vanderpool, R.W., Peters, T., Natarajan, S., Tolocka, M.P., Gemmill, D.B., and Wiener, R.W. Sensitivity analysis of the USEPA WINS PM 2.5 separator. Aerosol Science and Technology 34 (5):465-476 (2001). EPA/600/J-01/264. 9/4/2001  
**Contact:** Curtis M. Morris
- Willis, R.D., Ellenson, W.D., and Conner, T.L. Monitoring and source apportionment of particulate matter near a large phosphorus production facility. Journal of the Air & Waste Management Association 51 (8):1142-1166 (2001). EPA/600/J-01/270. 8/31/2001  
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- Vanderpool, R.W., Peters, T., Natarajan, S., Gemmill, D.B., and Wiener, R.W. Evaluation of the loading characteristics of the EPA WINS PM 2.5 separator. Aerosol Science and Technology 34 (5):444-456 (2001). EPA/600/J-01/271. 9/4/2001  
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- Peters, T., Vanderpool, R.W., and Wiener, R.W. Methodology for measuring PM 2.5 separator characteristics using an aerosizer. Aerosol Science and Technology 34 (5):398-406 (2001). EPA/600/J-02/359. 5/1/2001  
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- Peters, T., Vanderpool, R.W., and Wiener, R.W. Design and calibration of the EPA PM 2.5 well impactor ninety-six (WINS). Aerosol Science and Technology 34 (5):389-397 (2001). EPA/600/J-01/277. 5/1/2001  
**Contact:** Elizabeth T. Hunike
- Conner, T.L., Norris, G.A., Landis, M.S., and Williams, R.W. Individual particle analysis of indoor, outdoor, and community samples from the 1998 Baltimore particulate matter study. Atmospheric Environment 35 (23):3935-3946 (2001). EPA/600/J-01/269. 8/31/2001  
**Contact:** Teri L. Conner

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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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McClenny, W.A., Colon, M., and Oliver, K.D. Ozone reaction with n-aldehydes (n=4-10), benzaldehyde, ethanol, isopropanol, and n-propanol adsorbed on a dual-bed graphitized carbon/carbon molecular sieve adsorbent cartridge. Journal of Chromatography A 929 (1-2):89-100 (2001). EPA/600/J-02/124.

9/1/2001

***Contact:*** William A. McClenny

Liu, S., and Pleil, J.D. Optimized determination of trace jet fuel volatile organic compounds in human blood using in-field liquid-liquid extraction with subsequent laboratory gas chromatographic-mass spectrometric analysis and on-column large volume injection. Journal of Chemical and Engineering Data 752 (1):159-171 (2001). EPA/600/J-01/267.

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***Contact:*** Joachim D. Pleil

Buckley, T.J., Pleil, J.D., Bowyer, J.R., and Davis, J.M. Evaluation of methyl tert-butyl ether (MTBE) as an interference on commercial breath-alcohol analyzers. Forensic Science International 123 (2-3):111-118 (2001). EPA/600/J-02/066.

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***Contact:*** Joachim D. Pleil

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***Contact:*** Avis P. Hines

Colon, M., Pleil, J.D., Hartlage, T.A., Guardani, M.L., and Martins, M.H. Survey of volatile organic compounds associated with automotive emissions in the urban airshed of Sao Paulo, Brazil. Atmospheric Environment 35 (23):4017-4031 (2001). EPA/600/J-01/251.

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Harper, S.L., and Gutknecht, W.F. Sources of variability in collection and preparation of paint and lead-coating samples. Journal of Environmental Monitoring 3 (3):335-340 (2001). EPA/600/J-01/180.

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***Contact:*** Sharon L. Harper

Vette, A.F., Rea, A.W., Lawless, P.A., Rodes, C.E., Evans, E.G., Highsmith, V.R., Creason, J.P., and Sheldon, L.S. Characterization of indoor-outdoor aerosol concentration relationships during the Fresno PM exposure studies. Aerosol Science and Technology 34 (1):118-126 (2001). EPA/600/J-01/114.

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***Contact:*** Daniel Vallero

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***Contact:*** Daniel Vallero

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***Contact:*** Kent W. Thomas

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*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2001 - Dec 31, 2001**

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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2001 - Dec 31, 2001**

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## ***RESEARCH RPT***

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6/28/2001

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# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

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Mason, M.A., Sheldon, L.S., Guo, Z., and Stout, II, D.M. Carpet as a sink for chlorpyrifos following the use of total release aerosols in the EPA test house. Presented at: Engineering Solutions to Indoor Air Quality Problems, Raleigh, NC, July 17-19, 2000. 7/17/2000

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***Contact:*** Charles W. Lewis

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***Contact:*** Charles W. Lewis

Zweidinger, R.B. Ambient Air Quality Monitoring. Presented at: International Workshop on Air Quality Management, Beijing, China, April 26-28, 2000. 3/7/2000

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# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

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Oliver, K.D., Jacumin, Jr., H.H., Daughtrey, Jr., E.H., and McClenny, W.A. Sample integrity of volatile organic compounds collected and stored on multiabsorbent tubes and analyzed using an auto GC-MS system. Presented at: International Symposium on Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000.

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***Contact:*** William A. McClenny

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***Contact:*** Curtis M. Morris

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***Contact:*** Robert G. Fuerst

# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2000 - Dec 31, 2000**

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Weber, R., Orsini, D., Duan, Y., Lee, Y.N., Brechtel, F., Klotz, P., ten Brink, H., Dasgupta, P.K., Hering, S., Edgerton, E., Solomon, P.A., and Baumann, K. Intercomparison of semi-continuous measurements of nitrate and sulfate at the EPA Atlanta Supersite, August 1999. Presented at: AGU Fall Meeting, San Francisco, CA, December 15-19, 2000.

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**Contact:** Teri L. Conner

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**Contact:** Curtis M. Morris

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**Contact:** Sharon L. Harper

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

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Jensen, P.A., Martin, S., Sapko, M.J., Cashdollar, K.L., Mura, K.E., Smith, L., Fritts, D., Blazicko, B.A., Reichert, J.M., and Pleil, J.D. Comparison of selected lower explosive limit meters used by USAF and commercial jet fuel tank entry personnel. Presented at: American Industrial Hygiene Conference and Exposition, Orlando, FL, May 19-25, 2000.

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***Contact:*** Sharon L. Harper

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***Contact:*** Daniel Vallero

Sheldon, L.S., Rea, A.W., Vette, A.F., Rodes, C.E., Whitaker, D., Jenkins, P., Hui, S., and Freun, S. Factors effecting exposures to VOCs during commuting in California. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Linda Sheldon

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Hore, P., Freeman, N.C.G., Tulve, N.S., Cohen-Hubal, E.A., Sheldon, L.S., and Lioy, P.J.

10/24/2000

Assessment of young children's potential pesticide exposure following a residential pesticide application - Part I. study design: exposure of children and toys. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

***Contact:*** V. Ross Highsmith

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***Contact:*** Brian A. Schumacher

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***Contact:*** Elaine A. Cohen-Hubal

Gordon, S.M., Kenny, D., Callahan, P.J., Brinkman, M.C., Wallace, L.A., and Ashley, D.L. Controlled, short-term dermal and inhalation exposure to chloroform. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

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***Contact:*** Lance A. Wallace

LaRosa, L., Howard-Reed, C., and Wallace, L.A. Continuous black carbon measurements indoors and outdoors at an occupied house for one year. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

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***Contact:*** Lance A. Wallace

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***Contact:*** Linda Sheldon

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***Contact:*** V. Ross Highsmith

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***Contact:*** V. Ross Highsmith

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***Contact:*** Kelly Leovic

# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2000 - Dec 31, 2000**

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Wallace, L.A., Howard-Reed, C., and Emmerich, S.J. Multiyear real-time monitoring of particles, PAH, and black carbon in an occupied house. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

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***Contact:*** Valerie G. Zartarian

Williams, R.W., Highsmith, V.R., Sheldon, L.S., Rea, A.W., Vette, A.F., Suggs, J.C., Leovic, K.W., Howard-Reed, C., Saunders, G., Ejire, A., Rodes, C.E., Thornburg, J., and Lawless, P.A. Preliminary findings from the NERL Research Triangle Park particulate matter panel study. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

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Tulve, N.S., Suggs, J.C., Davis, S., Mirick, D.K., McCurdy, T.R., and Moya, J. Frequency of mouthing behavior in young children. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

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***Contact:*** Thomas R. McCurdy

Burke, J.M., Zufall, M.J., Ozkaynak, H., and Zidek, J. The contribution of ambient PM<sub>2.5</sub> to total personal exposures: results from a population exposure model for Philadelphia, PA. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** A. Haluk Ozkaynak

Leovic, K.W., Ruder, E., Walker, T.H., Roman, H.A., Neumann, J.E., Walker, K.D., Sheldon, L.S., and Keeler, A. Determining the economic value of improved human exposure data. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Kelly Leovic

Thomas, K.W., Sheldon, L.S., Okino, M.S., Sandler, D.P., Dosemeci, M., and Alavanja, M.C.R. Approaches for measuring applicator exposure in the agricultural health study/pesticide exposure study. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Kent W. Thomas

Vallero, D.A. Transformation and transport of semi-volatile organic compounds from soil: measuring dicarboximides in a chamber. Presented at: American Institute of Hydrology International Conference 2000, Research Triangle Park, NC, November 5-8, 2000.

11/5/2000

***Contact:*** Daniel Vallero

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Stout, II, D.M., Morgan, M.K., and Wilson, N.K. A feasibility study examining the potential for human exposure to pet-borne diazinon residues following residential turf applications. Presented at: American Chemical Society National Meeting, Washington, DC, August 20-24, 2000.

8/20/2000

***Contact:*** Dan Stout

Thomas, K.W., Sheldon, L.S., Steen, W.C., Alavanja, M.C.R., Blair, A., Dosemeci, M., and Sandler, D.P. Agricultural health study/pesticide exposure study design. Presented at: American Chemical Society National Meeting, Washington, DC, August 20-24, 2000.

8/20/2000

***Contact:*** Kent W. Thomas

Williams, R.W., Suggs, J.C., Sheldon, L.S., Evans, G.F., Creason, J.P., Rodes, C.E., and Lawless, P.A. Relationships of gaseous concentrations of criteria air pollutants and PM 2.5 measures. Presented at: EPA/AWMA International Symposium on the Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000.

9/12/2000

***Contact:*** Ronald W. Williams

Ozkaynak, H. Exposure analysis methods used in environmental risk assessment. Presented at: Israel/EPA Comparative Risk Meeting, Tel Aviv, Israel, March 27, 2000.

3/27/2000

***Contact:*** A. Haluk Ozkaynak

Howard-Reed, C., Wallace, L.A., and Emmerich, S.J. Determination of particle deposition rates for cooking and other indoor source. Presented at: 19th Annual AAAR Conference, St. Louis, MO, November 6-10, 2000.

11/6/2000

***Contact:*** Lance A. Wallace

Sheldon, L.S., Williams, R.W., Highsmith, V.R., Rodes, C.E., Creason, J.P., and Walsh, D.B. An overview of EPA's human exposure panel studies. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Linda Sheldon

Howard-Reed, C., Zufall, M.J., Burke, J.M., Williams, R.W., Suggs, J.C., Walsh, D.B., Kwok, R.K., and Sheldon, L.S. Use of continuous nephelometer to measure personal exposure to particulate matter during the 1998 U.S. EPA Baltimore panel study. Presented at: PM2000 AWMA Conference, Charleston, SC, January 25-28, 2000.

1/25/2000

***Contact:*** Ronald W. Williams

LaRosa, L., Buckley, T.J., Howard-Reed, C., and Wallace, L.A. Assessment of indoor, outdoor, and personal PM differences. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 1999.

1/25/2000

***Contact:*** Lance A. Wallace

Rodes, C.E., Thornburg, J., Ensor, D., Lawless, P.A., and Wallace, L.A. A predictive model relating personal PM exposures with fixed location outdoor and microenvironmental indoor concentrations. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Linda Sheldon

Vallero, D.A., Stockburger, L., Farnsworth, J.L., and Peirce, J.J. Analysis of the flux of an endocrine disrupting dicarboximide and its degradation products from the soil to the lower troposphere. Presented at: 219th American Chemical Society National Meeting, San Francisco, CA, March 26-31, 2000.

3/26/2000

***Contact:*** Daniel Vallero



# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Al-Raheem, M., El-Desouky, M., Mage, D.T., Kollander, M., Wallace, L.A., and Spengler, J.D. Personal exposures to PM and gaseous air pollutants at the end of 1991 Kuwait oil fires. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Lance A. Wallace

Buckley, T.J., and Wallace, L.A. Evaluation of air purification devices for control of indoor PM. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Lance A. Wallace

Ott, W.R., Wallace, L.A., and Mage, D.T. Predicting particulate (PM-10) frequency distributions for urban populations using a random component superposition model (RCS) model. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Lance A. Wallace

Burke, J.M., Zufall, M.J., Ozkaynak, H., Xue, J., and Zidek, J. Predicting population exposures to PM: the importance of microenvironmental concentrations and human activities. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Janet Burke

Williams, R.W., Suggs, J.C., Zweidinger, R.B., Evans, G.F., Creason, J.P., Kwok, R.K., Rodes, C.E., Lawless, P.A., and Sheldon, L.S. Comparison of filter-based and continuous particulate matter methodologies from residential and ambient monitoring. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

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***Contact:*** Ronald W. Williams

Vallero, D.A., Farnsworth, J.L., and Peirce, J.J. Supercritical fluid extraction of semi-volatile organic compounds from particles. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Daniel Vallero

Sheldon, L.S., Williams, R.W., Zweidinger, R.B., Evans, G.F., Highsmith, V.R., Suggs, J.C., Rodes, C.E., and Creason, J.P. Lessons learned from four exposure panel studies: the U.S. EPA's particulate matter studies involving elderly cohorts. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Linda Sheldon

Vette, A.F., Rea, A.W., Lawless, P.A., Rodes, C.E., Evans, G.F., Highsmith, V.R., Creason, J.P., and Sheldon, L.S. Indoor/outdoor aerosol concentration ratios during the 1999 Fresno particulate matter exposure studies as a function of size, season, and time of day. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Linda Sheldon

Suggs, J.C., Williams, R.W., and Creason, J.P. Power analysis of linear relationships between personal exposure and indoor/outdoor PM 2.5 concentrations at Baltimore and Fresno. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Ronald W. Williams

Blair, A., Sandler, D., Tarone, R., Lubin, J.H., Thomas, K.W., Lynch, C., Zahm, S.H., Rothman, N., and Alavanja, M. Mortality among farmers and spouses in the agricultural health study. Presented at: American College of Epidemiology Annual Meeting, Albuquerque, NM, September 22-24, 2002.

9/22/2000

***Contact:*** Kent W. Thomas

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

McCurdy, T.R., and Burke, J.M. Comparison of exercise participation rates for children in the literature with those in EPA's consolidated human activity database (CHAD). Presented at: ISEA Conference, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Thomas R. McCurdy

Morgan, M.K., Stout, II, D.M., and Wilson, N.K. A feasibility study examining the potential for human health exposure to pet-borne diazinon residues following residential turf applications. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Marsha K. Morgan

Rea, A.W., Zufall, M.J., Williams, R.W., Howard-Reed, C., and Sheldon, L.S. The influence of human activity patterns on personal PM exposure: a comparative analysis of filter-based and continuous particle measurements. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Ronald W. Williams

LaRosa, L., Buckley, T.J., Howard-Reed, C., and Wallace, L.A. Assessment of outdoor, indoor, and personal PM concentration differences by continuous monitoring. Presented at: Air and Waste Management Association Meeting, Charleston, SC, January 25-28, 2000.

1/25/2000

***Contact:*** Lance A. Wallace

Cohen-Hubal, E.A., Sheldon, L.S., and Suggs, J.C. Study to identify important parameters for characterizing pesticide residue transfer efficiencies. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Elaine A. Cohen-Hubal

Zufall, M.J., Burke, J.M., Williams, R.W., Suggs, J.C., Kwok, R.K., Walsh, D.B., Creason, J.P., and Sheldon, L.S. Effects of human activity patterns on personal PM 2.5 concentrations of residents in a retirement facility. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Ronald W. Williams

Wallace, L.A., Howard-Reed, C., LaRosa, L., and Emmerich, S.J. Monitoring particles, soot, and PAHs in a home. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Lance A. Wallace

Van Emon, J.M. Environmental immunochemistry at the U.S. EPA, National Exposure Research Laboratory's Human Exposure Branch. Presented at: UN/International Atomic Energy Agency Meeting, Vienna, Austria, September 25-28, 2000.

9/25/2000

***Contact:*** Jeanette M. Van Emon

Rigas, M.L., Roth, W.L., and Jarabek, A.M. Proposed models for estimating relevant dose resulting from exposures by the gastrointestinal route. Presented at: Society for Risk Analysis 2000 Annual Meeting, Arlington, VA, December 3-6, 2000.

12/3/2000

***Contact:*** Marc L. Rigas

Van Emon, J.M., and Reed, A.W. Immunoassay analysis for chlorpyrifos in foods. Presented at: 37th Annual Pesticide Residue Workshop and Florida Foodborne Pathogen Analysis Conference, St. Petersburg Beach, FL, July 16-21, 2000.

7/16/2000

***Contact:*** Jeanette M. Van Emon

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Rigas, M.L., and Cohen-Hubal, E.A. Use of a convection-diffusion model to understand gastrointestinal absorption of environmentally-relevant chemicals. Presented at: Society for Risk Analysis 2000 Annual Meeting, Arlington, VA, December 3-6, 2000.

12/3/2000

***Contact:*** Marc L. Rigas

Van Emon, J.M., Reed, A.W., and Chuang, J.C. Immunoassay human exposure studies. Presented at: American Chemical Society, Pacificchem 2000, Honolulu, HI, December 14-19, 2000.

12/14/2000

***Contact:*** Jeanette M. Van Emon

Pearson, R., and Rogers, K.R. Electrochemical technique for detection of TNT using disposable screen-printed electrodes. Presented at: 220th ACS National Meeting, Washington, DC, August 20-24, 2000.

8/20/2000

***Contact:*** Kim R. Rogers

Rogers, K.R., and Mishra, N.N. Highly sensitive assay for anticholinesterase compounds using 96 well plate format. Presented at: 220th ACS National Meeting, Washington, DC, August 20-24, 2000.

8/20/2000

***Contact:*** Kim R. Rogers

Blancato, J.N., Knaak, J.B., Power, F.W., and Dary, C.C. Use of PBPK models for assessing absorbed dose and ChE inhibition from aggregate exposure of infants and children to organophosphorus insecticides. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Jerry Blancato

Hern, S.C., Robertson, G.L., Hart, R., Schumacher, B.A., and Paz, E. Pesticides in dust samples from homes and schools in Yuma, Arizona. Presented at: International Society of Exposure Analysis, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Stephen C. Hern

Furtaw, Jr., E.J., Okino, M.S., Quackenboss, J.J., Roy, A., and Liroy, P.J. Modeling of chlorpyrifos exposure, dose, and biomarker using NHXAS Minnesota Children's data. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Edwin J. Furtaw

Gordon, S.M., Brinkman, M.C., Callahan, P.J., Lebowitz, M.D., O'Rourke, M.K., Rogan, S.R., Ashley, D.L., Needham, L., Pirkle, J.L., Moschandreas, D.J., and Robertson, G.L. Fixed-site air and biomarker measurements of VOCs in a non-occupationally exposed population along the Arizona-Mexico border. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Gary L. Robertson

Chuang, J.C., Chang, J.S., Bowman, L.E., Van Emon, J.M., and Reed, A.W. Evaluation of analytical methods for determining pesticides in foods. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Jeanette M. Van Emon

# NERL/HEASD Publications

Technical Information Manager: Liz Hope (919) 541-2785

Jan 1, 2000 - Dec 31, 2000

**Presented Published**

Robertson, G.L., Petty, J., Huckins, J., O'Rourke, M.K., Rogan, S.R., and Lebowitz, M.D. Application of semipermeable membrane devices to indoor air sampling. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

**Contact:** Gary L. Robertson

Rigas, M.L., and Hassenzuhl, D.M. The use of computer modeling packages to illustrate uncertainty in risk assessments: an ease of use and interpretation comparison. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

**Contact:** Marc L. Rigas

Moschandreas, D.J., Karuchit, S., Kim, Y., Ari, H., Lebowitz, M.D., O'Rourke, M.K., Gordon, S.M., and Robertson, G.L. Regression models of residential exposure to chlorpyrifos and diazinon. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

**Contact:** Gary L. Robertson

Nishioka, M.G., Brinkman, M.C., Gordon, S.M., O'Rourke, M.K., Lebowitz, M.D., Rogan, S.R., Moschandreas, D.J., and Robertson, G.L. Comparisons of pesticide levels and exposures in NHEXAS Arizona and Arizona-Mexico border populations. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

**Contact:** Gary L. Robertson

Moschandreas, D.J., Ari, H., Karuchit, S., Kim, Y., Lebowitz, M.D., O'Rourke, M.K., Gordon, S.M., and Robertson, G.L. Exposure to pesticides by medium and route: the 90th percentile and related uncertainties. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

**Contact:** Gary L. Robertson

Rogers, K.R., and Pearson, R. Electrochemical technique for TNT using disposable screen-printed electrode. Presented at: 8th International Meeting on Chemical Sensors, Basel, Switzerland, July 2-5, 2000.

7/2/2000

**Contact:** Kim R. Rogers

Rogers, K.R., Apostol, A.B., Madsen, O.S., and Spencer, C.W. Detection of low dose radiation-and chemically-induced DNA damage using temperature differential fluorescence assays. Presented at: 8th International Meeting on Chemical Sensors, Basel, Switzerland, July

7/2/2000

**Contact:** Kim R. Rogers

Rogers, K.R., Becker, J.Y., and Cembrano, J. Tyrosinase-based carbon paste electrode biosensor for detection of phenols: binder and pre-oxidation effects. Presented at: 8th International Meeting on Chemical Sensors, Basel, Switzerland, July 2-5, 2000.

7/2/2000

**Contact:** Kim R. Rogers

Coakley, W.A., Butler, L.C., Dandge, V.D., Caldwell, J.R., and Desican, V.D. WinCADRE (computer-aided data review and evaluation). Presented at: PITTCO 2000 Science for the 21st Century, New Orleans, LA, March 11-18, 2000.

3/11/2000

**Contact:** Larry C. Butler

Rogers, K.R., Apostol, A.B., Madsen, S.J., and Spencer, C.W. Detection of DNA damage using a fiberoptic biosensor. Presented at: ACS National Meeting, San Francisco, CA, March 26-30, 2000.

3/26/2000

**Contact:** Kim R. Rogers

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Rogers, K.R., and Pearson, R. Electrochemical technique for TNT using disposable screen-printed electrode. Presented at: Eight International On-Site Analysis Conference, Las Vegas, NV, January 23-26, 2000.

1/23/2000

***Contact:*** Kim R. Rogers

Cullen, S.J., Van Emon, J.M., Robbins, K., and Reed, A.W. Immunoassays for food analysis. Presented at: Immunochemistry Summit VIII Meeting, San Francisco, CA, March 26-31, 2000.

3/26/2000

***Contact:*** Jeanette M. Van Emon

Van Emon, J.M., Reed, A.W., Chuang, J.C., Montoya, A., and Manclus, J.J. Determination of 3,5,6-Trichloro-2-pyridinol (TCP) by ELISA. Presented at: Immunochemistry Summit VIII Meeting, San Francisco, CA, March 26-31, 2000.

3/26/2000

***Contact:*** Jeanette M. Van Emon

Chuang, J.C., Hart, K., Chang, J.S., Reed, A.W., and Van Emon, J.M. Evaluation of analytical methods for determining pesticides in baby food and adult duplicate-diet samples. Presented at: Immunochemistry Summit VIII Meeting, San Francisco, CA, March 26-31, 2000.

3/26/2000

***Contact:*** Jeanette M. Van Emon

Blancato, J.N., Power, F.W., and Fisher, J.W. Application and use of dose estimating exposure model (DEEM) for dose comparisons after exposure to trichloroethylene (TCE). Presented at: Annual Meeting of Society of Toxicology, Philadelphia, PA, March 19-23, 2000.

3/19/2000

***Contact:*** Jerry Blancato

Tsang, A.M., Brown, R.N., Power, F.W., Blancato, J.N., and Scott, C.S. Uncertainty analysis of TCE using the dose exposure estimating model (DEEM) in ACSL. Presented at: Annual Meeting of Society of Toxicology, Philadelphia, PA, March 19-23, 2000.

3/19/2000

***Contact:*** Robert N. Brown

Dary, C.C., Mohammed, Z., and Saleh, M.A. Chemomorphic analysis of malathion in skin layers: implications for the use of dermatopharmacokinetic (DPK) tape stripping in exposure assessment to pesticides. Presented at: Annual Meeting of Society of Toxicology, Philadelphia, PA, March 19-23, 2000.

3/19/2000

***Contact:*** Curtis C. Dary

Power, F.W., Blancato, J.N., Ruiz, A., Licitra, J., Ventresca, J.J., and Brown, R.N. An advanced PBPK model input system and data repository for complex models with export for the ACSL model engine. Presented at: Annual Meeting of Society of Toxicology, Philadelphia, PA, March 19-23, 2000.

3/19/2000

***Contact:*** Jerry Blancato

Knaak, J.B., Dary, C.C., Patterson, G.T., and Blancato, J.N. Use of PBPK/PD models and foliar transfer coefficients in assessing reentry into pesticide treated citrus and turf. Presented at: Annual Meeting of Society of Toxicology, Philadelphia, PA, March 19-23, 2000.

3/19/2000

***Contact:*** Curtis C. Dary

Moschandreas, D.J., Kim, Y., Karuchit, S., Ari, H., Lebowitz, M.D., O'Rourke, M.K., Gordon, S.M., and Robertson, G.L. Characterization of residential exposure to chlorpyrifos and diazinon. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Gary L. Robertson

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Blancato, J.N. Exposure to dose models: their uses in helping access relevant dose in children. Presented at: Children's Health Symposium of the Office of Environmental Health Hazard Assessment of the State of California, Oakland, CA, May 1-2, 2000.

5/1/2000

***Contact:*** Jerry Blancato

O'Rourke, M.K., Lebowitz, M.D., Gordon, S.M., Nishioka, M.G., Moschandreas, D.J., and Robertson, G.L. Demographic characteristics of the NHEXAS-Arizona border study population. Presented at: ISEA 2000 Exposure Analysis in the 21st Century: Integrating Science, Policy and Quality of Life, Monterey Peninsula, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Gary L. Robertson

Van Emon, J.M. Immunochemistry at the U.S. EPA, National Exposure Research Laboratory's Human Exposure Research Branch. Presented at: EnvironAnalysis 2000, Ontario, Canada, May 9-11, 2000.

5/9/2000

***Contact:*** Jeanette M. Van Emon

Lewtas, J., Binkova, B., Myers, S.R., Lenieek, J., Subrt, P., and Sram, R.J. Biomarkers of exposure and metabolic susceptibility to fine particle air pollution. Presented at: ISEA Conference, Monterey, CA, October 24-27, 2000.

10/24/2000

***Contact:*** Joellen Jungers (Lewtas)

Cupitt, L.T. Implications of the US Clean Air Act on the future of urban air quality: linking urban air, indoor environments and human exposure. Presented at: Urban Air, Indoor Environment and Human Exposure: Future Needs for Policy-Science Interface, Thessaloniki, Greece, April 16-18, 2000.

4/16/2000

***Contact:*** Larry T. Cupitt

Lewtas, J., Williams, R.W., and Wise, S. Personal exposure to fine particle polycyclic aromatic hydrocarbons: outdoor source tracers. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 2000.

1/25/2000

***Contact:*** Joellen Jungers (Lewtas)

Lewtas, J., Booth, D., Reimer, S., Pang, Y., Eatough, D.J., and Gundel, L. Comparison of sampling methods for semi-volatile organic carbon (SVOC) associated with PM 2.5. Presented at: PM 2000 AWMA Conference, Charleston, SC, January 24-28, 1999.

1/25/2000

***Contact:*** Joellen Jungers (Lewtas)

## ***BOOK CHAPTER***

Van Emon, J.M., Bowman, K.-L., and Gerlach, C.L. "Analytical challenges of environmental endocrine disruptor monitoring." In: Analysis of Environmental Endocrine Disruptors, Chapter 3 Cary, NC: Oxford University Press 2000, 23-32.

1/1/2000

***Contact:*** Jeanette M. Van Emon

## ***JOURNAL***

McCurdy, T.R., Glenn, G., Smith, L., and Lakkadi, Y. The National Exposure Research Laboratory's consolidated human activity database. International Journal of Exposure Analysis and Environmental Epidemiology 10 (6):566-578 (2000). EPA/600/J-01/041.

12/31/2000

***Contact:*** Thomas R. McCurdy

# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Edney, E.O., Driscoll, D.J., Speer, R.E., Weathers, W.S., Kleindienst, T.E., Li, W., and Smith, D.F. Impact of aerosol liquid water on secondary organic aerosol yields of irradiated toluene/propylene/NOx/(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>/air mixtures. Atmospheric Environment 34 (23):3907-3919 (2000). EPA/600/J-01/040.

8/1/2000

***Contact:*** Robert L. Seila

Mar, T.F., Norris, G.A., Koenig, J.Q., and Larson, T.V. Associations between air pollution and mortality in Phoenix, 1995-1997. Environmental Health Perspectives 108 (4):347-353 (2000). EPA/600/J-02/121.

4/1/2000

***Contact:*** Roy B. Zweidinger

Geron, C.D., Guenther, A., Sharkey, T.D., and Arnts, R.R. Temporal variability in the basal isoprene emission factor. Tree Physiology 20 (12):799-805 (2000). EPA/600/J-00/186.

6/1/2000

***Contact:*** Robert R. Arnts

Gabele, P.A., and Pyle, S.M. Emissions from two outboard engines operating on reformulated gasoline containing MTBE. Environmental Science & Technology 34 (3):368-372 (2000). EPA/600/J-02/222.

2/1/2000

***Contact:*** Peter A. Gabele

Solomon, P.A., Cowling, E., Hidy, G., and Furiness, C. Comparison of scientific findings from major ozone field studies in North America and Europe. Atmospheric Environment 34 (12-14):1885-1920 (2000). EPA/600/J-01/069.

3/1/2000

***Contact:*** Paul A. Solomon

Seigneur, C., Pun, B., Pai, P., Louis, J., Solomon, P.A., Emery, C., Morris, R., Zahniser, M.S., Worsnop, D.R., Koutrakis, P., White, W., and Tombach, I. Guidance for the performance evaluation of three-dimensional air quality modeling systems for particulate matter and visibility. Journal of the Air & Waste Management Association 50 (4):588-599 (2000). EPA/600/J-01/070.

4/1/2000

***Contact:*** Paul A. Solomon

Pleil, J.D., Smith, L.B., and Zelnick, S.D. Personal exposure to JP-8 jet fuel vapors and exhaust at air force bases. Environmental Health Perspectives 108 (3):183-192 (2000). EPA/600/J-00/046.

3/1/2000

***Contact:*** Joachim D. Pleil

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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

***Presented Published***

Williams, R.W., Suggs, J.C., Rodes, C.E., Lawless, P.A., Zweidinger, R.B., Kwok, R.K., Creason, J.P., and Sheldon, L.S. Comparison of PM 2.5 and PM 10 monitors. Journal of Exposure Analysis and Environmental Epidemiology 10 (5):497-505 (2000). EPA/600/J-01/039.

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Howard-Reed, C., Rea, A.W., Zufall, M.J., Burke, J.M., Williams, R.W., Suggs, J.C., Sheldon, L.S., Walsh, D.B., and Kwok, R.K. Use of a continuous nephelometer to measure personal exposure to particles during the U.S. EPA Baltimore and Fresno panel studies. Journal of the Air & Waste Management Association 50:1125-1132 (2000). EPA/600/J-02/491.

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***Contact:*** A. Haluk Ozkaynak

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***Contact:*** Lance A. Wallace



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***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

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***Contact:*** Valerie G. Zartarian

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***Contact:*** Kim R. Rogers

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## ***PUB REPORT***

Peters, T., Antley, J.T., Vanderpool, R.W., Natarajan, S., Norris, G.A., McElroy, F.F., Solomon, P.A., Gemmill, D.B., Tolocka, M.P., and Wiener, R.W. Effectiveness of the PM 2.5 federal reference method to differentiate fine and coarse mode aerosol (a response to Section 6102(e) of the Transportation Equity Act for the 21st Century. 2000. EPA/600/R-00/033 (NTIS PB2001-101909).

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***Contact:*** Russell W. Wiener

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 2000 - Dec 31, 2000**

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Antley, J.T., and Giglio, J. Development and use of rare earth tracers in the modified dry particle deposition system (formerly "DUST" chamber). 2000. EPA/600/R-00/005 (NTIS PB2001-100351).

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***Contact:*** Sharon L. Harper

## ***RESEARCH RPT***

U.S. Technical Advisory Group to ISO TC 146. Development of international standards for air quality monitoring and control. 2000. EPA/600/R-00/064 (NTIS PB2000-106995).

7/11/2000

***Contact:*** M. Susan Lumpkin

## ***SYMPOS/CONF***

Coulter, C.T., Wagoner, R.A., and Lewis, C.W. Chemical mass balance model: EPA-CMB8.2. Presented at: International Symposium on Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000. EPA/600/A-60/099 (NTIS PB2001-100771).

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***Contact:*** Tom Coulter

Willis, R.D. Workshop on UNMIX and PMF as Applied to PM 2.5. Presented at: Workshop on UNMIX and PMF as Applied to PM 2.5, Research Triangle Park, NC, February 14-16, 2000. EPA/600/A-00/048 (NTIS PB2001-100353).

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***Contact:*** Charles W. Lewis

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***Contact:*** Peter A. Gabele

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***Contact:*** Anne Rea (Vette)

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10/3/2000

***Contact:*** Joellen Jungers (Lewtas)

# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 1999 - Dec 31, 1999**

***Presented Published***

## ***ABSTRACT/ORAL***

Edney, E.O., Swartz, E.C., Driscoll, D.J., Speer, R.E., Kleindienst, T.E., Li, W., McIver, C.D., and Conner, T.S. EPA PM chemistry studies. Presented at: US/German Ozone/Fine Particle Science and Environmental Chamber Workshop, Riverside, CA, October 4-7, 1999. 10/4/1999

***Contact:*** Edward O. Edney

Luecken, D.J., and Kleindienst, T.E. EPA gas phase chemistry chamber studies. Presented at: US/German Ozone/Fine Particulate Science and Environmental Chamber Workshop, Riverside, CA, October 4-7, 1999. 10/4/1999

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Seila, R.L., Main, H.H., Arriaga, J.L., Martinez, G., and Ramadan, A.B. 1996 Paso del Norte ozone study VOC measurements. Abstract presented at: 1999 92nd A&WMA National Meeting, St. Louis, MO, June 20-24, 1999. 6/1/1999

***Contact:*** Robert L. Seila

Arriaga, J.L., Ordunez, R., Escalona, S., Martinez, G., Cervantes, A.D., and Seila, R.L. VOCs in Ciudad Juarez urban atmosphere. 1999 A&WMA National Meeting, St. Louis, MO, June, 1999. 6/1/1999

***Contact:*** Robert L. Seila

Lewis, C.W. VOC radiocarbon measurements during SCOS97 and emissions inventory validation. Presented at: CARB Biogenic Hydrocarbons Symposium, Sacramento, CA, December 9-10, 1999. 12/9/1999

***Contact:*** Charles W. Lewis

Mukerjee, S. Lower Rio Grande Valley transboundary air pollution project (TAPP). Presented at: 1999 Border Environmental Technical Conference, Las Cruces, NM, November 17-19, 1999. 11/17/1999

***Contact:*** Shaibal Mukerjee

Mukerjee, S. Transboundary influences in the lower Rio Grande Valley. Presented at: TAPP Public Meeting, Brownsville, TX, October 27, 1999. 10/27/1999

***Contact:*** Shaibal Mukerjee

Landis, M.S., Stevens, R.K., and Prestbo, E. Manual speciation methods for measuring atmospheric mercury: applications/implementation. Presented at: EPA Workshop on Source and Ambient Air Monitoring of Mercury, Bloomington, MN, September 13-14, 1999. 9/13/1999

***Contact:*** Matthew S. Landis

Arnts, R.R. Evaluation of solid adsorbents for the collection and analyses of ambient biogenic volatile organics. Presented at: American Geophysical Union, San Francisco, CA, December 13-17, 1999. 12/13/1999

***Contact:*** Robert R. Arnts

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***Contact:*** Shaibal Mukerjee

Solomon, P.A., Mitchell, W.J., Gemmill, D.B., Tolocka, M.P., Wiener, R.W., Eberly, S.I., Rice, J., Homolya, J., and Miguel, A.H. PM 2.5 chemical speciation sampler evaluation field program: results from the four city study. Presented at: American Association for Aerosol Science, Tacoma, WA, October 11-15, 1999. 10/11/1999

***Contact:*** Paul A. Solomon

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

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Scheffe, R.D., Solomon, P.A., and Pitchford, M. The supersites program. Presented at: American Association for Aerosol Science, Tacoma, WA, October 11-15, 1999.

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Fuerst, R.G. Environmental technology verification's advanced monitoring systems pilot. 1998 AWMA-ASME-EPA Environmental Informational Exchange, St. Louis, MO, June 20-24, 1999.

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***Contact:*** Robert G. Fuerst

Tolocka, M.P., Chen, F.L., and Wiener, R.W. Comparison of Modified and Reference Inlets for PM10 Samplers. A&WMA 92nd Annual Meeting & Exhibition, St. Louis, MO, June 20-24, 1999.

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***Contact:*** Russell W. Wiener

Solomon, P.A., Mitchell, W.J., Gemmill, D.B., Tolocka, M.P., Wiener, R.W., and Homolya, J. PM 2.5 Chemical Speciation Monitor Evaluation Field Program: Preliminary Results. A&WMA 92nd Annual Meeting & Exhibition, St. Louis, MO, June 20-24, 1999.

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***Contact:*** Russell W. Wiener

Kellogg, R., Willis, R.D., and Conner, T.L. Preliminary Assessments of Filter Deposit Uniformity for X-ray Fluorescence Analysis. EPA/AWMA Air Toxics Symposium, Cary, NC, 09/1-3/98.

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***Contact:*** Teri L. Conner

Pleil, J.D., Prah, J.D., Ashley, D., Case, M.W., and Colon, M. Controlled methyl tertiary butyl ether (MTBE) exposure to humans through dermal, ingestion, and inhalation routes and the resultant biomarker tertiary butyl alcohol (TBA) as measured in exhaled breath and venous blood. Presented at: EPA/NIEHS In-House Workshop on Applying Biomarker Research, Chapel Hill, NC, August 30-31, 1999.

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***Contact:*** Joachim D. Pleil

Liu, S., and Pleil, J.D. Blood extraction experiments for measuring human exposure to JP-8 jet fuel. Abstract presented at: 217th Meeting of the American Chemical Society, Anaheim, CA, March 15-19, 1999.

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***Contact:*** Joachim D. Pleil

Williams, R.W., Creason, J.P., Zweidinger, R.B., Suggs, J.C., Kwok, R.K., and Sheldon, L.S. Personal exposure and ambient air sampling related to an elderly population living in a Baltimore retirement center: preliminary findings of the 1998 Baltimore study. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.

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***Contact:*** V. Ross Highsmith

Zartarian, V. A physically-based stochastic model for estimating dermal and non-dietary ingestion exposure and dose. Presented at: Environmental and Occupational Health Sciences Institute, Piscataway, NJ, March 29, 1999.

3/29/1999

***Contact:*** Valerie G. Zartarian

Zartarian, V. The population SHEDS (Stochastic Human Exposure and Dose Simulation) model for pesticides. Presented at: Aggregate Exposure Assessment Model Evaluation and Refinement Workshop, Baltimore, MD, October 19, 1999.

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***Contact:*** Valerie G. Zartarian

Ozkaynak, H. Framework for model evaluation and validation. Presented at: Aggregate Exposure Assessment Model Evaluation and Refinement Workshop, Baltimore, MD, October 19-21, 1999.

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***Contact:*** V. Ross Highsmith

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 1999 - Dec 31, 1999**

***Presented Published***

Zartarian, V., Ozkaynak, H., Burke, J.M., Zufall, M.J., Rigas, M.L., and Furtaw, Jr., E.J. A modeling framework for estimating children's residential exposure and dose to chlorpyrifos via dermal residue contact and non-dietary ingestion. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.

9/7/1999

***Contact:*** Valerie G. Zartarian

Vallero, D.A., Stockburger, L., Farnsworth, J.L., and Peirce, J.J. Measuring the transport of endocrine disrupting dicarboximides and degradation products from the soil to the lower troposphere. Presented at: International POPs Workshop, Research Triangle Park, NC, October 5-7, 1999.

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***Contact:*** Daniel Vallero

Vallero, D.A., and Foley, G.J. North America's sound management of chemicals initiative: application of selection criteria to dioxins/furans, hexachlorobenzene, and hexachlorocyclohexanes. Presented at: International POPs Workshop, Research Triangle Park, NC, October 5-7, 1999.

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***Contact:*** Daniel Vallero

Vallero, D.A., Stockburger, L., Farnsworth, J.L., and Peirce, J.J. Measurement and modeling of the transport of endocrine disrupting dicarboximides and degradation products from the soil to the lower troposphere. Presented at: Seventh Symposium on the Chemistry and Fate of Modern Pesticides, Lawrence, KS, September 14-16, 1999.

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***Contact:*** Daniel Vallero

Vallero, D.A., and Foley, G.J. North America's sound management of chemicals initiative: application of selection criteria to dioxins/furans, hexachlorobenzene, and hexachlorocyclohexanes. Workshop on Persistent Organic Pollutants and Heavy Metals, Research Triangle Park, NC, October 5-7, 1999.

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***Contact:*** Daniel Vallero

Lindstrom, A.B., Waidyanatha, S., Yeowell-O'Connell, K., and Rappaport, S.M. Benzene oxide protein adducts as biomarkers of benzene exposure. Presented at: EPA/NIEHS In-House Workshop Biomarkers: Taking Stock, Chapel Hill, NC, August 30-31, 1999.

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***Contact:*** Andrew B. Lindstrom

Vallero, D.A., and Peirce, J.J. Measuring and modeling the transport of endocrine disrupting dicarboximides and degradation products from the soil to the lower troposphere. Presented at: The Conference on Chromatography Environmental, Lawrence, KS, September 13-16, 1999.

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***Contact:*** Daniel Vallero

McCurdy, T.R., Nelson, W.C., Lakkadi, Y., Glenn, G., Smith, L., del Valle-Torres, M., and Trippett, J.A. The National Exposure Research Laboratory's comprehensive human activity database. Presented at: International Society of Exposure Analysis, Athens, Greece, September 5-8, 1999.

9/5/1999

***Contact:*** Thomas R. McCurdy

Burke, J.M., McCurdy, T.R., Ozkaynak, H., and Sheldon, L.S. Analysis of human activity data for use in modeling environmental exposures. Presented at: American Association of Aerosol Research, Tacoma, WA, October 11-15, 1999.

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***Contact:*** V. Ross Highsmith

Cohen-Hubal, E.A., and Sheldon, L.S. Data requirements for assessing children's exposure to pesticides. Presented at: ACS National Meeting, New Orleans, LA, August 23, 1999.

8/23/1999

***Contact:*** Linda Sheldon

# ***NERL/HEASD Publications***

*Technical Information Manager: Liz Hope (919) 541-2785*

**Jan 1, 1999 - Dec 31, 1999**

	<i><b>Presented</b></i>	<i><b>Published</b></i>
Sheldon, L.S., Cohen-Hubal, E.A., and Berry, Jr., M.R. Children's exposure research strategy in support of FQPA. Presented at: ACS National Meeting, New Orleans, LA, August 23, 1999.	8/23/1999	
<i><b>Contact:</b></i> Linda Sheldon		
Zartarian, V., Ozkaynak, H., Burke, J., Zufall, M.J., Furtaw, E.J., Jr., Cohen-Hubal, E.A., and Sheldon, L.S. Modeled residential chlorpyrifos exposure and dose to children via dermal surface residue contact and non-dietary ingestion. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.	9/5/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
Sheldon, L.S., Berry, M.R., and Vallero, D.A. Bioaccumulation of POPs in fish and estimation of human dietary exposure and dose. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.	9/5/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
Zufall, M.J., Ozkaynak, H., Brauer, M., Ott, W.R., Ryan, J., and Spengler, J. Particulate matter concentrations in non-residential microenvironments. Presented at: American Association of Aerosol Research, Tacoma, WA, October 11-15, 1999.	10/11/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
Burke, J., McCurdy, T.R., Ozkaynak, H., and Sheldon, L.S. Analysis of human activity data for use in modeling environmental exposures. Presented at: Third Colloquium on Particulate Air Pollution and Public Health, Durham, NC, June 6-8, 1999.	6/6/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
Williams, R., Creason, J., Zweidinger, R.B., Suggs, J.C., Kwok, R., and Sheldon, L.S. Exposure analysis from personal and ambient air sampling: results of the 1998 Baltimore study. Presented at: Third Colloquium on Particulate Air Pollution and Public Health, Durham, NC, June 6-8, 1999.	6/6/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
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<i><b>Contact:</b></i> V. Ross Highsmith		
Ozkaynak, H., Zufall, M.J., Burke, J., Xue, J., and Zidek, J. Predicting population exposures to PM10 and PM 2.5. Presented at: Third Colloquium on Particulate Air Pollution and Public Health, Durham, NC, June 6-8, 1999.	6/6/1999	
<i><b>Contact:</b></i> V. Ross Highsmith		
Wallace, L.A., and Howard-Reed, C. Indoor-outdoor relationships of particles, PAH, and black carbon in an occupied townhouse. Presented at: American Association of Aerosol Research, Tacoma, WA, October 11-15, 1999.	10/11/1999	
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Ozkaynak, H., Zartarian, V., Burke, J., Zufall, M.J., Cohen-Hubal, E.A., Sheldon, L.S., Buck, R., and Xue, J. Modeling multipathway exposures of children and adults to pesticides. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.	9/5/1999	
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<i><b>Contact:</b></i> V. Ross Highsmith		

# ***NERL/HEASD Publications***

***Technical Information Manager: Liz Hope (919) 541-2785***

**Jan 1, 1999 - Dec 31, 1999**

***Presented Published***

Cohen-Hubal, E.A., Burke, J.M., Zufall, M.J., Ozkaynak, H., and Sheldon, L.S. Important pathways and factors for assessing children's residential exposure to pesticides. Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.

9/5/1999

***Contact:*** V. Ross Highsmith

Zartarian, V. Human exposure: concepts, definitions, and EPA research initiatives. Presented at: Presentation for Johns Hopkins University School of Public Health, New York, NY, April 9, 1999.

4/9/1999

***Contact:*** Thomas R. McCurdy

Ozkaynak, H. Modeling environmental exposures to particulate matter and pesticides. Presented at: International Meeting on Particulate Matter Exposures and Health Effects, London, United Kingdom, June 25, - July 3, 1999.

6/25/1999

***Contact:*** V. Ross Highsmith

Zartarian, V. Estimating children's dermal and non-dietary ingestion exposure and dose with EPA's SHEDS model. Presented at: Society for Risk Analysis, Atlanta, GA, December 5-8, 1999.

12/1/1999

***Contact:*** Valerie G. Zartarian

Wallace, L.A., Howard-Reed, C., Zartarian, V., and Ott, W.R. Clothes as a source of particles contributing to the "personal cloud". Presented at: ISEE/ISEA '99 Conference, Athens, Greece, September 5-8, 1999.

9/5/1999

***Contact:*** V. Ross Highsmith

Ozkaynak, H., Xue, J., Spengler, J.D., Parise, H., Privalova, L., Brezgina, S., Katsnelson, B., Kuzmin, S., Voronin, S., and Kosheleva, A. Acute effects of air pollution on respiratory symptoms and peak flow measurements of symptomatic and asymptomatic children in Nizhni Tagil, Russia. Presented at: PM 2000 Program Committee Meeting, Salt Lake City, UT, October 3-4, 1999.

10/3/1999

***Contact:*** A. Haluk Ozkaynak

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